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College Retirement Equities Fund

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- 12-22-98 Mel
- Steve Werner, Sensenbrenner
- jailor bill
- no on TIAA Cref
- Jan meeting
- 8th - 10 am
- countries contribution rates as low as '82



State of Wisconsin

AUG 23 1999
JOINT SURVEY COMMITTEE ON RETIREMENT SYSTEMS
RETIREMENT RESEARCH COMMITTEE

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August 23, 1999

TO: Representative John Gard, Jt. Finance Committee Co-Chair
Senator Brian Burke, Jt. Finance Committee Co-Chair
Representative Dean Kaufert, Member, Jt. Finance Committee
Members of the Jt. Survey Committee on Retirement Systems
Members of the Retirement Research Committee
Senator Fred Risser, President of the Senate
Representative Scott Jensen, Speaker of the Assembly
Senator Chuck Chvala, Senate Majority Leader

FROM: Scott Dennison, Director of Retirement Research

RE: **Variable Annuity Actuarial Study**

On June 4, 1998, at its Section 13.10 budget appeals meeting, the Joint Finance Committee, acting at Rep. Kaufert's urging, required this office to have the Wisconsin Retirement System actuary to study the implications of reopening the variable annuity to active WRS members. The Joint Finance Committee appropriated \$5,000 for this study.

The study is finally available having suffered delays due to two other actuarial studies and the actuaries' regular valuation work. A copy is enclosed for your information.

SD:db

Enclosure

WISCONSIN RETIREMENT SYSTEM
ACTUARIAL REVIEW OF THE
VARIABLE ANNUITY PROGRAM

PREPARED FOR THE
JOINT SURVEY COMMITTEE ON RETIREMENT SYSTEMS
AUGUST 1999

GABRIEL, ROEDER, SMITH & COMPANY



GABRIEL, ROEDER, SMITH & COMPANY

Consultants & Actuaries

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August 4, 1999

Wisconsin Joint Survey Committee on
Retirement Systems
Madison, Wisconsin

Ladies and Gentlemen:

The results of an actuarial study to assess the potential financial effect on the Wisconsin Retirement System (WRS) of re-opening the Variable Annuity Program is presented in this report.

Valuations were based upon participant data and financial information used in the last regular annual actuarial valuation of the Wisconsin Retirement System as of December 31, 1998, and supplementary financial information furnished by the Department of Employee Trust Funds. Participant data is summarized on the following page.

Actuarial methods and assumptions were, except where otherwise noted, the same as those adopted by the Employee Trust Funds Board in 1997 pursuant to the triennial experience study covering the 3 year period from January 1, 1994 to December 31, 1996. Actuarial valuations were conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and Wisconsin statutes.

Respectfully submitted,
Gabriel, Roeder, Smith and Company

A handwritten signature in cursive script, reading 'Norman L. Jones'.

Norman L. Jones, F.S.A.

NLJ:ct

WISCONSIN RETIREMENT SYSTEM
ACTIVE PARTICIPANTS INCLUDED IN VALUATIONS
DECEMBER 31, 1998

Active participants included in the valuations totaled 245,935 with an annual payroll totaling \$8,227.5 million, as follows:

ACTIVE PARTICIPANTS

Valuation Group	Number	Annual Earnings (\$ millions)	Group Averages			
			Earnings	Age	Years of Service	Contribs.
General	227,017	\$7,456.8	\$32,847	44.2	11.3	\$38,319
Executive Group & Elected Officials	1,450	73.5	50,664	52.5	11.9	59,292
Protective Occupation with Social Security	14,810	570.3	38,509	38.2	11.1	44,503
Protective Occupation without Social Security	2,658	126.9	47,733	40.0	13.5	79,849
Total Active Participants	245,935	\$8,227.5	\$33,454	43.8	11.3	\$39,264

INTRODUCTION

Participants hired prior to 1982 had the option of re-directing up to one-half of their participant normal contributions to the Variable Annuity Investment Trust (VRIT). VRIT assets are substantially all invested in equities and participant variable accounts are credited with actual market rates of return. Conversely, the portion of participant contributions not so directed are credited to the Fixed Fund. Fixed Retirement Investment Trust (FRIT) assets are distributed among a broad range of assets categories, with about 60% being invested in equities. Fixed fund assets are credited with a smoothed market-related rate of return.

At retirement, the difference between fixed and variable participant accumulations (called the variable excess) is doubled by virtue of an employer match. A participant then begins receiving a Variable Annuity which is the actuarial equivalent of the fixed annuity that would otherwise have been payable plus (minus, if negative) the doubled variable excess account. Each year during retirement, after certain experience adjustments, variable annuities are increased or decreased based on the difference between (i) the market rate of return on variable assets, and (ii) 5% (conversely, fixed annuities, after certain experience adjustments, are increased or decreased based on the difference between (i) the smoothed market-related rate of return on fixed assets, and (ii) 5%).

At the end of each calendar year, active variable annuity participants have the option of ending their variable participation with respect to future contributions. Similarly, once a year variable annuitants have the option of converting their variable annuities to fixed annuities with respect to future payments.

When the variable program began, fixed fund assets were invested primarily in fixed income investment (bonds). By accepting the risk that variable returns would be lower than fixed fund returns during some market cycles and that variable annuity payments would fluctuate more than fixed annuities from year to year, variable participants had the expectation that their lifetime benefits would be higher. In aggregate, the program has worked in that manner (i.e., more volatility and higher average returns). The following section presents comparative information on the fixed and variable programs.

The Variable Annuity Program was closed to new entrants effective January 1, 1982.

WRS FIXED & VARIABLE FUND EXPERIENCE

WRS Fixed & Variable Fund Experience

The exhibits on the following pages provide an historical perspective of Fixed Fund vs. Variable Fund activity, as follows:

Exhibit I	Fixed and Variable published earnings rates since 1970.
Exhibit II	Graphical comparison fixed and variable rates since 1970, demonstrating differences in magnitude and volatility.
Exhibit III	Illustration of how accounts would have accumulated under Fixed, Variable and 5% Capped interest crediting based on a 1/1/70 date of hire and WRS average earnings.
Exhibit IV	Same, except beginning date is 1/1/85.
Exhibit V	Comparative statement of fixed and variable annuity increases since 1983. Variable annuity increases have averaged 3% a year greater than fixed annuity increases.
Exhibit VI	Graphical comparison of fixed and variable annuity increases, demonstrating differences in magnitude and volatility.

EXHIBIT I

Comparison of Fixed vs. Variable Published Interest Rates 1970 - 1998

Year	Fixed Rate	Variable Rate
1998	13.1%	18.0%
1997	12.8	23.0
1996	12.5	20.0
1995	11.3	27.0
1994	7.7	0.0
1993	11.0	17.0
1992	10.2	11.0
1991	12.1	28.0
1990	8.6	(11.0)
1989	18.1	24.0
1988	10.2	22.0
1987	14.0	(1.0)
1986	12.7	13.0
1985	12.5	33.0
1984	11.4	6.0
1983	11.2	26.0
1982	10.4	24.0
1981	10.0	4.0
1980	8.9	26.1
1979	7.7	16.8
1978	7.3	9.3
1977	7.2	(2.3)
1976	6.8	25.0
1975	7.2	35.2
1974	7.2	(26.8)
1973	7.7	(17.2)
1972	6.7	13.7
1971	6.7	12.2
1970	5.6	4.7

Note: Prior to 1983, there were three separate Retirement Systems; the percentage shown is for the Wisconsin Retirement Fund, covering General employees, Police and Fire but not Teachers.

EXHIBIT II

Comparison of Fixed vs. Variable Published Interest Rates 1970 - 1998

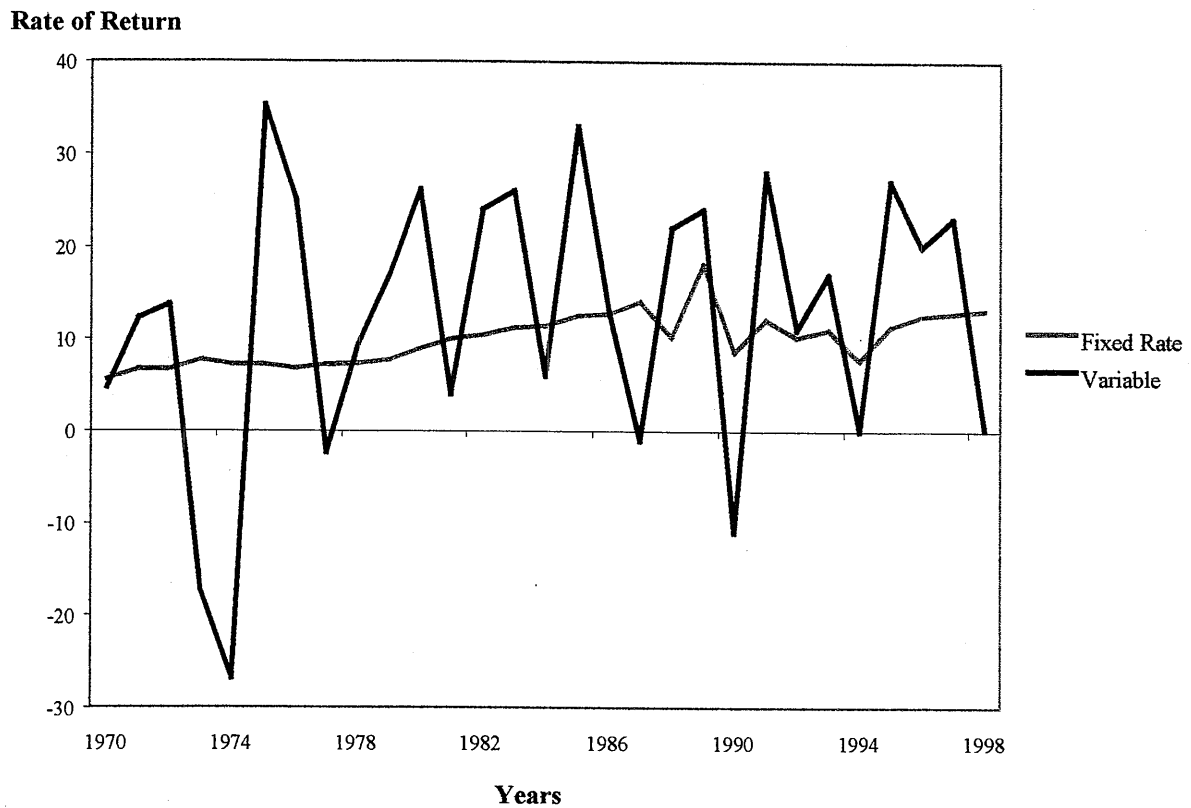


EXHIBIT III **Wisconsin Retirement System** **Illustration of Participant Account Accruals Since 1970**

Year	Average Earnings	Fixed Account			Variable Account			Variable			Illustrative 5% Capped Account		
		Rate	5% Contr.	Bal. EOY	Rate	Contr.	Bal. EOY	Excess	Rate	Contr.	Rate	Contr.	Bal. EOY
1970	\$ 9,479*	5.6%	\$ 473.97	\$ 473.97	4.7%	\$ 473.97	\$ 473.97	\$ -	5.0%	\$ 473.97	5.0%	\$ 473.97	\$ 473.97
1971	9,953*	6.7	497.67	1,003.40	12.2	497.67	1,029.46	26.07	5.0	497.67	5.0	497.67	995.34
1972	10,451*	6.7	522.55	1,593.17	13.7	522.55	1,693.05	99.88	5.0	522.55	5.0	522.55	1,567.66
1973	10,974*	7.7	548.68	2,264.53	(17.2)	548.68	1,950.53	(314.00)	5.0	548.68	5.0	548.68	2,194.72
1974	11,522*	7.2	576.11	3,003.69	(26.8)	576.11	2,003.90	(999.79)	5.0	576.11	5.0	576.11	2,880.57
1975	12,098*	7.2	604.92	3,824.87	35.2	604.92	3,314.19	(510.68)	5.0	604.92	5.0	604.92	3,629.52
1976	12,703*	6.8	635.17	4,720.13	25.0	635.17	4,777.91	57.77	5.0	635.17	5.0	635.17	4,446.16
1977	13,338*	7.2	666.92	5,726.90	(2.3)	666.92	5,334.94	(391.97)	5.0	666.92	5.0	666.92	5,335.39
1978	14,005*	7.3	700.27	6,845.24	9.3	700.27	6,531.36	(313.88)	5.0	700.27	5.0	700.27	6,302.43
1979	14,706*	7.7	735.28	8,107.60	16.8	735.28	8,363.91	256.30	5.0	735.28	5.0	735.28	7,352.83
1980	15,441*	8.9	772.05	9,601.23	26.1	772.05	11,318.93	1,717.71	5.0	772.05	5.0	772.05	8,492.52
1981	16,213	10.0	810.65	11,372.00	4.0	810.65	12,582.34	1,210.34	5.0	810.65	5.0	810.65	9,727.80
1982	17,400	10.4	870.00	13,424.69	24.0	870.00	16,472.10	3,047.41	5.0	870.00	5.0	870.00	11,084.19
1983	18,612	11.2	930.60	15,858.86	26.0	930.60	21,685.45	5,826.60	5.0	930.60	5.0	930.60	12,569.00
1984	19,167	11.4	958.35	18,625.12	6.0	958.35	23,944.93	5,319.81	5.0	958.35	5.0	958.35	14,155.80
1985	19,987	12.5	999.35	21,952.60	33.0	999.35	32,846.11	10,893.50	5.0	999.35	5.0	999.35	15,862.94
1986	21,309	12.7	1,065.45	25,806.04	13.0	1,065.45	38,181.55	12,375.51	5.0	1,065.45	5.0	1,065.45	17,721.54
1987	22,821	14.0	1,141.05	30,559.93	(1.0)	1,141.05	38,940.78	8,380.85	5.0	1,141.05	5.0	1,141.05	19,748.66
1988	23,770	10.2	1,188.50	34,865.54	22.0	1,188.50	48,696.26	13,830.71	5.0	1,188.50	5.0	1,188.50	21,924.60
1989	24,365	18.1	1,218.25	42,394.46	24.0	1,218.25	61,601.61	19,207.15	5.0	1,218.25	5.0	1,218.25	24,239.08
1990	25,234	8.6	1,261.70	47,302.08	(11.0)	1,261.70	56,087.13	8,785.05	5.0	1,261.70	5.0	1,261.70	26,712.73
1991	26,517	12.1	1,325.85	54,351.48	28.0	1,325.85	73,117.38	18,765.90	5.0	1,325.85	5.0	1,325.85	29,374.22
1992	27,643	10.2	1,382.15	61,277.48	11.0	1,382.15	82,542.44	21,264.96	5.0	1,382.15	5.0	1,382.15	32,225.08
1993	28,886	11.0	1,444.30	69,462.31	17.0	1,444.30	98,018.95	28,556.65	5.0	1,444.30	5.0	1,444.30	35,280.63
1994	29,595	7.7	1,479.75	76,290.65	0.0	1,479.75	99,498.70	23,208.05	5.0	1,479.75	5.0	1,479.75	38,524.41
1995	30,479	11.3	1,523.95	86,435.45	27.0	1,523.95	127,887.30	41,451.86	5.0	1,523.95	5.0	1,523.95	41,974.58
1996	31,160	12.5	1,558.00	98,797.88	20.0	1,558.00	155,022.76	56,224.88	5.0	1,558.00	5.0	1,558.00	45,631.31
1997	31,980	12.8	1,599.00	113,043.01	23.0	1,599.00	192,277.00	79,233.99	5.0	1,599.00	5.0	1,599.00	49,511.88
1998	32,847	13.1	1,642.35	129,493.99	18.0	1,642.35	228,529.21	99,035.22	5.0	1,642.35	5.0	1,642.35	53,629.82

* Estimated.

The 5% cap did not apply to pre-1982 hires. It is shown here to demonstrate the long-term difference between capped and uncapped accumulations.

EXHIBIT IV

Wisconsin Retirement System

Illustration of Participant Account Accruals Since 1985

Year	Average Earnings	Illustrative Fixed Account#			Variable Account@			Variable		5% Capped Account	
		Rate	5% Contr.	Bal. EOY	Rate	Contr.	Bal. EOY	Excess	Rate	Contr.	Bal. EOY
1985	\$19,987	12.5%	\$ 999.35	\$ 999.35	33.0%	\$ 999.35	\$ 999.35	\$ -	5.0%	\$ 999.35	\$ 999.35
1986	21,309	12.7	1,065.45	2,191.72	13.0	1,065.45	2,194.72	3.00	5.0	1,065.45	2,114.77
1987	22,821	14.0	1,141.05	3,639.61	(1.0)	1,141.05	3,313.82	(325.79)	5.0	1,141.05	3,361.56
1988	23,770	10.2	1,188.50	5,199.35	22.0	1,188.50	5,231.36	32.01	5.0	1,188.50	4,718.13
1989	24,365	18.1	1,218.25	7,358.68	24.0	1,218.25	7,705.13	346.45	5.0	1,218.25	6,172.29
1990	25,234	8.6	1,261.70	9,253.23	(11.0)	1,261.70	8,119.27	(1,133.96)	5.0	1,261.70	7,742.60
1991	26,517	12.1	1,325.85	11,698.72	28.0	1,325.85	11,718.52	19.80	5.0	1,325.85	9,455.59
1992	27,643	10.2	1,382.15	14,274.14	11.0	1,382.15	14,389.70	115.57	5.0	1,382.15	11,310.51
1993	28,886	11.0	1,444.30	17,288.59	17.0	1,444.30	18,280.25	991.66	5.0	1,444.30	13,320.34
1994	29,595	7.7	1,479.75	20,099.56	0.0	1,479.75	19,760.00	(339.56)	5.0	1,479.75	15,466.11
1995	30,479	11.3	1,523.95	23,894.76	27.0	1,523.95	26,619.15	2,724.39	5.0	1,523.95	17,763.36
1996	31,160	12.5	1,558.00	28,439.61	20.0	1,558.00	33,500.98	5,061.37	5.0	1,558.00	20,209.53
1997	31,980	12.8	1,599.00	33,678.88	23.0	1,599.00	42,805.21	9,126.33	5.0	1,599.00	22,819.01
1998	32,847	13.1	1,642.35	39,733.16	18.0	1,642.35	52,152.49	12,419.33	5.0	1,642.35	25,602.31

Full fixed interest crediting did not apply to post-1981 hires. It is shown here to demonstrate the long-term difference between capped and uncapped accumulations.
 @ Variable participation was not available to post-1981 hires. It is shown here to demonstrate the difference between fixed and variable accumulations.

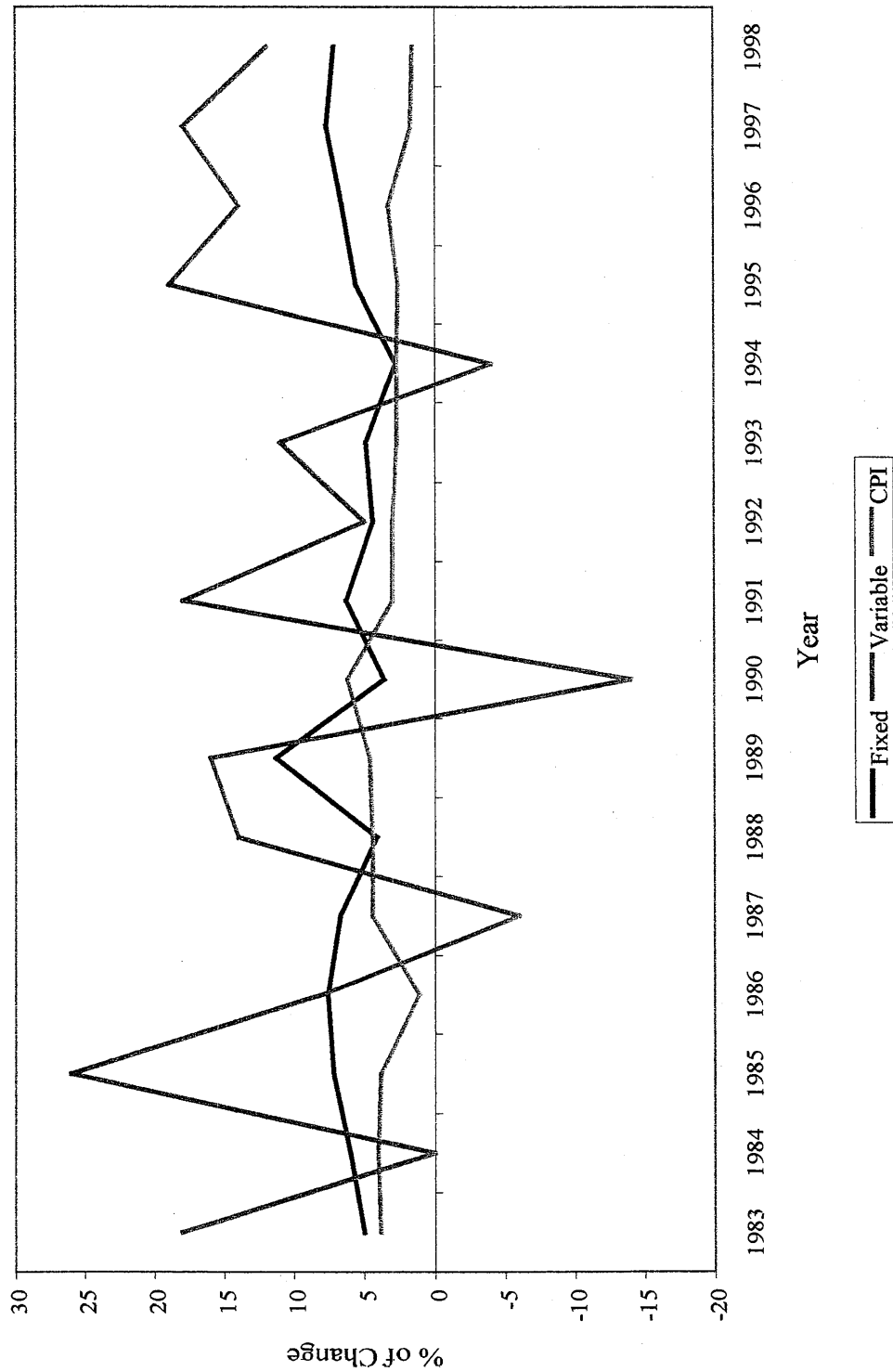
EXHIBIT V

Comparative Statement

Year	Number	\$ Millions			Ratio	Change in	
		Annual Annuities	Fund Balance	Actuarial Reserve		Annuities	CPI
FIXED ANNUITIES							
1983	57,770	\$ 177.7	\$ 1,830.3	\$ 1,738.3	1.053	5.0%	3.8%
1984	60,302	214.3	2,255.5	2,120.3	1.064	6.0	4.0
1985	62,953	257.6	2,758.2	2,561.0	1.077	7.2	3.8
1986	65,425	303.5	3,256.9	3,021.2	1.078	7.6	1.1
1987	67,688	366.9	3,833.7	3,594.6	1.067	6.7	4.4
1988	70,017	420.6	4,319.6	4,150.9	1.041	4.1	4.4
1989	73,232	488.7	5,487.4	4,928.1	1.113	11.3	4.6
1990	77,666	611.3	6,443.8	6,219.1	1.036	3.6	6.2
1991	79,465	660.4	7,137.8	6,711.3	1.063	6.3	3.0
1992	81,508	732.3	7,782.4	7,456.6	1.044	4.4	3.0
1993	83,836	801.7	8,608.2	8,205.3	1.049	4.9	2.7
1994	86,214	882.2	9,286.2	9,029.6	1.028	2.8	2.7
1995	88,998	955.8	10,351.7	9,804.1	1.056	5.6	2.6
1996	92,198	1,065.8	11,699.8	10,977.1	1.066	6.6	3.3
1997	95,128	1,188.4	13,185.1	12,240.4	1.077	7.7	1.7
1998	99,112	1,349.5	14,951.8	13,943.0	1.072	7.2	1.6
16 Year Average						6.0%	3.3%
VARIABLE ANNUITIES							
1983	13,598	\$ 25.9	\$ 289.4	\$ 245.0	1.181	18.0%	3.8%
1984	14,520	34.2	329.2	327.5	1.005	0.0	4.0
1985	15,529	38.0	463.1	366.6	1.263	26.0	3.8
1986	16,276	51.8	538.7	498.6	1.080	8.0	1.1
1987	17,084	60.4	548.8	584.2	0.939	(6.0)	4.4
1988	17,779	61.4	682.6	594.0	1.149	14.0	4.4
1989	18,502	75.9	878.1	756.5	1.161	16.0	4.6
1990	19,922	101.0	868.6	1,013.4	0.857	(14.0)	6.2
1991	20,538	91.5	1,101.3	929.7	1.184	18.0	3.0
1992	20,968	112.6	1,208.6	1,147.4	1.053	5.0	3.0
1993	21,623	123.7	1,407.9	1,268.6	1.110	11.0	2.7
1994	22,248	144.6	1,418.0	1,487.0	0.954	(4.0)	2.7
1995	22,978	150.2	1,854.2	1,556.0	1.192	19.0	2.6
1996	23,725	189.8	2,264.9	1,976.7	1.146	14.0	3.3
1997	24,462	228.2	2,800.0	2,371.5	1.181	18.0	1.7
1998	25,424	289.5	3,400.5	3,035.5	1.120	12.0	1.6
16 Year Average						9.2%	3.3%

EXHIBIT VI

History of % Changes in Annuities and CPI



CONSIDERATIONS OF
RE-OPENING THE VARIABLE PROGRAM

Pros and Cons of Re-Opening The Variable Annuity Program

Arguments in Favor of Re-Opening

1. **Choices:** Participant choices would be expanded.
2. **Hybrid Features:** The Variable Annuity Program enhances WRS hybrid features which may answer some of the concerns of those who have proposed defined contribution plan options.
3. **Tiers of Participants:** The present distinction between those participants who have the variable annuity option and those who do not would be eliminated.
4. **Potential For Higher Benefits:** Historically, equity fund returns have exceeded balanced fund returns by over 2% a year over long periods. New participants would be given the opportunity of sharing in favorable market returns, thereby increasing their expected future retirement income. The Monte Carlo illustration of sample account accumulations on the following page illustrates this point. As expected, there are periods when fixed accumulations exceed variable accumulations, but there is an expectation that cumulative long-term variable returns will exceed fixed returns. Other Monte Carlo projections (which are available upon request) would produce different year-to-year outcomes, but long term results would be similar.
5. **Administration:** Record keeping and reporting mechanisms to efficiently administer the program are already in place.
6. **Cost:** If the 5% cap on participant interest credits is removed, the variable annuity program could be implemented with no effect on near-term contribution requirements.
7. **Risk Transfer:** There is an investment risk transfer between employers and participants inherent in the variable annuity program. In down markets, an expanded variable annuity participation would serve to dampen the upward pressure on contribution rates that would otherwise occur. (See additional discussion of this point under Arguments Against on page 13.)

Wisconsin Retirement System

Monte Carlo Illustration of Participant Account Accruals

Fixed vs. Variable Interest Crediting

	Fixed	Variable
Mean Rate of Return (ROR)	8.0%	10.0%
Standard deviation	8.0	8.0
Annual pay increases	4.6	4.6
Participant contribution rate	5.0	5.0

Age	Salary	Contr.	Fixed		Variable		Variable Excess*
			ROR	Balance EOY	ROR	Balance EOY	
35	\$20,000	\$1,000	14.22%	\$ 1,000	17.12%	\$ 1,000	\$ -
36	20,920	1,046	15.55	2,202	18.24	2,228	27
37	21,882	1,094	7.78	3,467	(17.35)	2,936	(531)
38	22,889	1,144	9.33	4,935	16.16	4,555	(380)
39	23,942	1,197	6.89	6,472	5.44	6,000	(472)
40	25,043	1,252	0.43	7,752	1.53	7,344	(408)
41	26,195	1,310	5.50	9,488	7.44	9,200	(288)
42	27,400	1,370	4.84	11,317	12.40	11,710	393
43	28,660	1,433	9.21	13,793	22.96	15,832	2,040
44	29,979	1,499	12.64	17,035	16.56	19,953	2,918
45	31,358	1,568	16.87	21,477	26.72	26,852	5,376
46	32,800	1,640	12.35	25,769	(1.83)	28,001	2,232
47	34,309	1,715	12.33	30,662	20.08	35,339	4,677
48	35,887	1,794	11.71	36,047	13.28	41,826	5,780
49	37,538	1,877	9.79	41,452	14.72	49,860	8,408
50	39,265	1,963	10.39	47,723	4.16	53,898	6,175
51	41,071	2,054	6.51	52,883	2.64	57,374	4,491
52	42,960	2,148	5.56	57,971	8.72	64,525	6,554
53	44,937	2,247	2.97	61,940	3.52	69,043	7,103
54	47,004	2,350	5.97	67,988	16.88	83,048	15,060
55	49,166	2,458	5.57	74,233	1.21	86,511	12,278
56	51,427	2,571	4.92	80,457	6.00	94,273	13,816
57	53,793	2,690	7.74	89,374	14.88	110,991	21,617
58	56,268	2,813	8.09	99,417	17.60	133,338	33,921
59	58,856	2,943	11.73	114,022	16.80	158,682	44,660
60	61,563	3,078	13.67	132,687	15.60	186,514	53,828
61	64,395	3,220	9.68	148,750	(0.15)	189,454	40,704
62	67,357	3,368	9.83	166,741	16.72	224,499	57,759
63	70,456	3,523	6.44	181,001	1.93	232,355	51,353
64	73,697	3,685	2.46	189,139	(1.67)	232,159	43,020
65	77,087	3,854	5.86	204,077	14.96	270,745	66,668
Mean			8.61%#		10.11%		

* Variable excess is the Variable Balance EOY minus Fixed Balance EOY.

Fixed fund returns benefit from an initial balance in the Transaction Amortization Account.

Arguments Against Re-Opening

1. **Administration:** If the program is re-opened without lifting the 5% cap on interest credits for post-1981 hires, it is expected that a very high portion of post-1981 entrants would elect to participate. This initial surge of elections, potentially exceeding 100,000, would be difficult to cope with efficiently.
2. **Risk Transfer:** As indicated previously, there is an investment risk transfer between employers and participants inherent in the variable annuity program. As a result, in favorable economic environments employers would be forgoing potential future rate reductions. In that regard, consider the following:

Rule of Thumb: Each 1% investment gain (loss) translates approximately into a 0.1% reduction (increase) in contribution rates.*

To illustrate, in a year when Fixed Fund earnings are 12%, rates may, in isolation, be expected to drop by .4%. Measurement of the extent of the risk transfer is beyond the scope of this study. However, heavy participation in the Variable Annuity Program could, as a rough estimate, reduce that effect by somewhere between a quarter to a half.

3. **Current Fixed Fund Structure:** Fixed trust fund assets are now invested approximately 60% in equities. Uncapping fixed fund interest credits may substantially eliminate participant interest in the variable program, especially in light of the substantial benefit of the lower volatility of fixed fund returns.
4. **Timing:** It is likely that the turbulent investment markets of the 1970's entered into the decision to close the Variable Annuity Program. Since then we have witnessed the longest bull market in our history. Re-opening at this time entails the risk of repeating "buy high – sell low" activity that is inconsistent with long-term retirement planning objectives.

* Under the complex WRS funding mechanism, the timing of the recognition of gains is generally not immediate.

CONCLUDING COMMENTS

- We recommend that consideration be given to re-opening the Variable Annuity Program only if the 5% cap on participant contributions for post-1981 entrants is removed. If it were re-opened under the 5% cap, and participants were given the option of re-directing one-half of their contributions, it is expected that the financial effect would be close to one-half of the full cost of removing the cap (see following page).
- If the cap is removed, re-opening the program would have minimal expected financial effect on WRS. In the long-term, a high level of participation would result in an additional transfer of investment risk (and potential rewards) from employers to participants.
- The decision of whether or not to re-open the program (again assuming removal of the 5% cap) should be based on what constitutes good benefit design. Central to that debate should be the consideration of whether or not the current fixed fund program has enough attributes of the original variable annuity program to make re-opening unnecessary.

**INTERESTED CREDITED TO PARTICIPANT ACCOUNTS
IN THE FIXED FUND**

<u>Date of Participation</u>	<u>Rate Credited for Purpose of</u>	
	<u>Money Purchase Minimum</u>	<u>Refunds</u>
Present		
Prior to 1982	Actual*	Actual*
January 1, 1982 & Later	5%	3%
Uncapped	Actual*	Actual*

* Based on smoothed rate of return.

**EFFECT OF COMPUTED CONTRIBUTION RATES
OF REMOVING INTEREST CAPS***

<u>General</u>	<u>Executive & Elected</u>	<u>Protective Occupations</u>	
		<u>With Social Security</u>	<u>Without Social Security</u>
0.49%	0.40%	0.17%	0.06%

* Based on prior supplemental actuarial valuation as of December 31, 1997.

VARIABLE ANNUITY
CURRENT STATUTORY PROVISIONS

VARIABLE ANNUITY CURRENT PROVISION

WISCONSIN STATUTES SECTION 40.04(7)

(7) The reserves established under subs. (4), (5) and (6) shall be divided both individually and for the purposes of sub. (3) between a fixed annuity division and a variable annuity division. All required and additional contributions shall be credited to the fixed annuity division except:

(a) As otherwise elected by a participant prior to April 30, 1980. Any participant whose accounts on January 1, 1982, include credits segregated for a variable annuity shall have his or her required and additional contributions made on or after January 1, 1982, credited to the variable annuity division in a manner consistent with the participant's election prior to April 30, 1980, unless prior to January 1, 1982, the participant terminated such election under s. 40.85, 1979 stats. The department shall by rule provide that any participant who elected variable participation prior to April 30, 1980, may elect to cancel that variable participation as to future contributions. The department's rules shall permit a participant who elects or has elected to cancel variable participation as to future contributions, or an annuitant, to elect to transfer previous variable contribution accumulations to the fixed annuity division. A transfer of variable contribution accumulations under this paragraph shall result in the participant receiving the accrued gain or loss from the participant's variable participation. A participant may specify that election to cancel participation in the variable annuity division is conditional. If the participant so specifies the election is effective on the first date on which it may take effect on which the participant:

1. Is an annuitant and the amount of the annuity the participant or member will receive if the election is made effective is greater than or equal to the amount of the annuity the participant or member would have received if the participant or member had not elected variable participation; or
2. Is not an annuitant and the accumulated amount which is to be transferred to the fixed annuity division is equal to or greater than the amount which would have accumulated if the segregated contributions had been originally credited to the fixed annuity division.

b) An election under par. (a) is irrevocable and continuing except a participant or member may make a conditional election unconditional by filing written notice with the department.

c) Any participant whose required contributions are segregated in any portion to provide for a variable annuity may direct that any part or all of subsequent additional contributions credited to the participant's account be segregated to provide for a variable annuity and may at any time by filing a form prescribed by the department change the portion being segregated for any future additional contributions.

VARIABLE BENEFITS

WISCONSIN STATUTES SECTION 40.28

40.28 Variable benefits. (1) Any annuity provided to a participant whose accounts include credits segregated for a variable annuity shall consist of a fixed annuity and a variable annuity.

(a) The initial amount of the variable annuity shall be the amount which can be provided on the basis of the actuarial tables in effect on the effective date of the annuity by the following amounts, if otherwise available:

1. The amount of the additional contribution accumulations reserved for a variable annuity as of the date the annuity begins;
2. The amount equal to 200% of employee required contribution accumulations reserved for a variable annuity as of the date the annuity begins; and
3. The amount equal, as of the date the annuity begins, to the accumulated prior service credits reserved for the participant for a variable annuity within the employer accumulation account, together with the net gain or loss credited to the accumulations.

(b) The initial amount of the fixed annuity shall be the excess of the total annuity payable, as determined under s. 40.23, over the amount of the variable annuity.

(2) Whenever the balance in the variable annuity reserve, as of December 31 of any year, exceeds or is less than the then present value of all variable annuities in force, determined in accordance with the rate of interest and approved actuarial tables then in effect, by at least 2% of the present value of all variable annuities in force, the amount of each variable annuity payment shall be proportionately increased or decreased, disregarding fractional percentages, and effective on a date determined by rule, so as to reduce the variance between the balance of the variable annuity reserve and the present value of variable annuities to less than one percent.

(3) Except as otherwise specifically provided, benefits based on variable accumulations shall be determined on the same basis and paid in the same manner and at the same time as benefits based on accumulations not so segregated insofar as practicable considering the nature of variable annuities.

FOR YOUR INFORMATION:

We have learned that at the Legislative ORP hearing on March 22, 48 people registered: 44 in opposition, and 4 for information. No one registered in favor. Although the insurance company representatives spoke in favor of the ORP, they did not register because they were scheduled speakers.

PLEASE NOTE: ORP HEARING UW BOARD OF REGENTS

The UW Board of Regents will allow public comment on the ORP at the regular meeting of the Education Committee-UW Board of Regents. The meeting will be on Thursday, April 8, 1999 on the University of Wisconsin Campus at 1:15 p.m. at Van Hise Hall Room 1820. The ORP will be first on the agenda.

To register to speak you must call in advance. Call Judith Temby, UW Board of Regents Secretary at 608-262-2324. Comments will be limited to three minutes or less because of time constraints.

If you are unable to attend, but would like to send written comment send it to:

Judith Temby, UW Board of Regents Secretary
1860 Van Hise Hall
Madison, WI 53706

Please be advised that classes will be in session and parking is limited. You may park at the Helen C. White Ramp (across from the Memorial Union) or the Lake Street Ramp. In either case it is quite an uphill walk to Van Hise Hall. Individuals needing assistance may want to be dropped off at the Linden Street entrance to Van Hise Hall. There is elevator access to the 18th floor only at the Linden Street entrance.

date: March 29, 1999

to: Those Requesting a Report from the March 10 ORP Meeting

from: Organizers Jane Elmer (WREA), Ed Kehl (WCOA), Doug Lueck (WEAC-Retired) and Mel Sensenbrenner (WRC)

re: **Report from March 10 Meeting**
Overview of March 22 ORP Hearing Before the Joint Survey Committee on Retirement Systems

Legislator Attendance:

The hearing for the ORP was held on March 22 from 1:00 p.m.-6:30 p.m. Legislators present were Wirch, Vrakas, Jensen (excused himself early to babysit at home), and Schneider. Panzer and Erpenbach were unable to attend. Legislators seemed very attentive and interested in the issues raised. There are also a number of "public" representatives on this committee.

Overview:

Pat Lipton presented an overview of SWIB. Dave Stella presented an overview of ETF. Both Norm Jones (actuary) and Scott Dennison (RRC Chair) presented reports and findings.

General Attendance:

There were about 120 people attending. Twenty-two people registered to testify.

Speaking for Information:

Two people from "the University" (broad use of the term) spoke for information only. A representative from PROFS indicated that an ORP could help in recruitment, but did not want to jeopardize the WRS. The other university position was diplomatic, indicating that while an ORP could serve a purpose, changes to the current WRS could also address the issues. The Board of Regents and the UW are working to comply with the legislative mandate and will take final action at the May meeting.

Speaking in Favor:

Of those 22, about 8 or 9 represented insurance companies. The three companies were TIAA-Cref, Aetna, and Valic. Their major points were giving people "choice," portability, doing this without impacting the WRS, and "How will Wisconsin feel next year when TIAA-Cref is an accepted program in 49 states, and we are the only one without it?"

Speaking Against:

Two people from "the University" (broad use of the term) spoke against the ORP: a woman representing the academic/instructional staff said no one had ever turned down a job offer because there is no ORP, Ed Muzik indicated that "The ORP as a recruiting device is fiction." Both presented powerful testimony.

Nine representatives from the various annuitant and active employee organizations covered the issues raised by the ORP and stood firm in opposing it.

Changes to the WRS:

Most testimony for information or against the ORP raised issues that could be addressed in the WRS: changing the 5% guaranteed effective rate, addressing death benefit issues, reopening the variable, consideration of a formula multiplier increase and immediate health coverage.

Next Steps:

The JSCRS did not take action. The UW will develop legislation by June 1 deadline. We will keep you informed.

ORP Conference Report
Cherokee Country Club
March 10, 1999

Following is a summary of the presentations and discussions during the ORP Conference. We wish to express our appreciation to the 70 individuals who attended, representing 24 organizations, agencies, and legislative offices. We are especially grateful to the speakers and reactors who provided a wealth of information and opinion for our education and contemplation.

I History – 1997-98

Impetus for the introduction of legislation authorizing an ORP for the University of Wisconsin System appears to have come from the Speaker of the Assembly. The bill was referred to the Joint Survey Committee on Retirement Systems but was not reported out. Credit should be given to Rep. Judith Klusman, co-chair of the JSCRS for refusing the Speaker's demands to release the bill.

Language was inserted in the 1998 Budget Adjustment bill to authorize an ORP at the UW. However, challenges by retiree and annuitant organizations caused modification of the language. It passed the Joint Finance Committee on a strict partisan vote as part of the Budget Adjustment bill, requiring a study of the impact of an ORP on the WRS System by January 1999 and required the UW Board of Regents to prepare a plan for implementation of an ORP by June 1, 1999.

The actuarial impact study of the ORP has been completed and augmented by staff of the Retirement Research Committee. It should be noted that the UW Board of Regents were asked in December, 1997 to consider a set of principles for an ORP developed by the Regents Business and Finance Committee. The Board of Regents Fringe Benefits committee received a briefing in early March 1999 on the ORP and will continue to study the issue during meetings in April and May, when the Board will probably vote on the matter.

II Is an ORP needed?

Since the impetus for an ORP at the UW has not come from the UW, the JSCRS, the ETF, the WRS or any annuitant group, there is a legitimate question concerning the need for it. A 1996 study of 67 TIAACREF programs in educational institutions in the US revealed that there are 3 types of programs.

1. Exclusive (single plan) only plan available – no choice available
2. Alternative (requiring individuals to make a choice) proposed for Wisconsin
3. Supplements to state plans (allows investment at individuals initiative)

In 1996 there were 25 exclusive plans, 37 alternative plans and 5 supplement plans. In Indiana there was an indication that all three plans were available.

A major argument for allowing an ORP is to provide portability to mobile educators and to provide full crediting of employer and employee contributions. The obvious result is to encourage turnover – a substantially costly labor market activity that most for-profit employers try assiduously to avoid. Research comparing the benefits of defined benefit plan (formula) and defined contribution plan (money purchase) indicate there is little difference for long term employees. The defined contribution plan favors short term participants, appearing to reward the mobile workforce at the expense of a more stable workforce.

III Can we fix WRS

Many observers claim that WRS has been crippled by legislated adjustments to cap earnings, limit portability withdrawal to employee contributions, denying lump sum settlements and provide sub-standard death benefits. These problems are fixable and at a cost comparable to what an ORP might cost the system. Recent legislation eliminating the five year vesting requirement and partially improving death benefit provisions have improved the competitiveness of the WRS.

Correcting the remaining shortcomings would improve recruitment and retention of employees and would also eliminate serious equity issues now existing rather than create new ones which appear to be inevitable under an ORP. Increasing the number of different standards under which state employees must participate can only increase the already sizable dissatisfaction with the WRS.

IV What will an ORP cost the WRS?

The complex nature of the WRS and the problems associated with estimating participation rates by age group in an ORP are just two of the many variables complicating actuarial analysis. Estimates of the negative impact on WRS Trust Funds have ranged from 0 to \$35 million/yr once the program matures. The potential impact of further growth of ORP into other educational venues has not yet been considered although it needs to be.

Administrative cost comparisons are somewhat more reliable. These costs in the private sector average between 10 and 11 times the administrative costs incurred by the WRS. TIAACref administrative costs may be lower than the industry average but it is safe to assume they cannot compare with WRS results. This is one of the best arguments against privatizing the WRS.

V Problems and Obstacles

Our goal should be to develop and execute a strong, straightforward and factually accurate campaign in opposition to an ORP.

1. We may need to admit that the ORP can provide an attractive program of value to short term employees. The cost of that will be higher turnover.

2. We need to assess the attitudes, interest and awareness of the UW Regents.
3. We need to insure that appropriate and adequate involvement of existing legislative processes are followed, including public input at hearings.
4. We need to coordinate activity between organizations representing active participants in WRS as well as annuitants to avoid being whipsawed by lobbyists.
5. We need to educate annuitants to the challenge we face.
6. We need to identify benefits enjoyed by WRS participants which would not be available to ORP participants.
7. We need to identify existing equity issues and promote legislative changes.

VI Statistical Analysis

The following charts and observations illustrate:

- 1 a series of examples of annuitant benefits under various scenarios
- 2 money purchase crediting rates under various alternatives

If nothing else they serve to illustrate a variety of suggestions to consider when focusing on an ORP proposal, and the complexity of designing and maintaining a system that protects participants of all ages and employment experience, and provides equity for all.

Ed Kehl, Chair WCOA
Meeting facilitator

Individuals Attending (70)

ORP Conference

Cherokee Country Club

March 10, 1999

AARP

David Stucki

ACE

Fred Siegenthaler

AFSCME

Lucille Drost

AWSA

Charles R. Hilston
Walter M. Stenavich

DETF

Pam Henning

DIHLR-Retirees

Stan Spencer

DNR-Retirees

Thomas J. Rausch

DOT

Omer R. Jones
Jim Mathews

DOT-Retirees

James A. Gruentzer

JOINT SURVEY COMMITTEE ON RETIREMENT

Amanda Lawton (Sen. Erpenbach)
Sue Moe (Rep. Schneider)
Brian Pleva (Rep. Vrakas)
Beth Smith (Senator Wirch)

MTEA

Richard J. Wesley

RPFFW

Dick Lipke
Tom Speranza

Retired State Employee

Betty Jane Reis

SEA

Dismas Becker
Willie Haus
Nile A. Ostenso
Mel Sensenbrenner

SWIB

Heather Dobson
Ken Johnson

UW-Retirees

Joe Corry
Jim Skiles

WARSDA

Adele Petersen
Ludwig Petersen

WCOA

Ed Kehl

WEAC-R

Lee Chadwick
Ralph W. Christianson
Jack Coe
Bob DeGroot
Don Dieter
Deanna Ehmann
Mary G. Hoglund
Doug Lueck
Jerry Martin
Siv Ann Meyer
Marilyn Nemeth
Noel Ness
Phyllis Pope
Clayton Smits
Randy Sus
Shirley Sus
Don Wahl

WFT/AFT

Carrol Schiller

WPPA

Jerold Vreeland
Steven C. Werner

WREA

Eunice Berg
Pat Boyle
Carole Doubleday
Jane Elmer
Truman F. Graf
Elmer Homburg
Eugene Lehrmann
Don McCloskev

David Parker

Paul Rabenhorst
Leigh M. Roberts
Otto H. Schultz
Shirley Sweet
Howard E. Wilsmann

WFT-R

Lillian J. Adametz

Presenters:(in addition to those
registered with an organization)

Dave Stella, ETF
Karen Holden, LaFollette Institute
Scott Dennison, RRC Director
Blair Testin, RRC Director Emeritus
Janet Spratlin, UW Research Fellow

Registered but unable to attend: 15

AFSCME

Roy E. Kubista

AWSA

James Lynch
Ann R. Stenavich

JOINT SURVEY COMMITTEE ON RETIREMENT

Rep. Dan Vrakas (maybe)

RPFFW

Ron Bentz

SAA

Jennifer Kammerud

WEAC

Don Krahn

WEAC-R

Matt Marty
Pat Porter

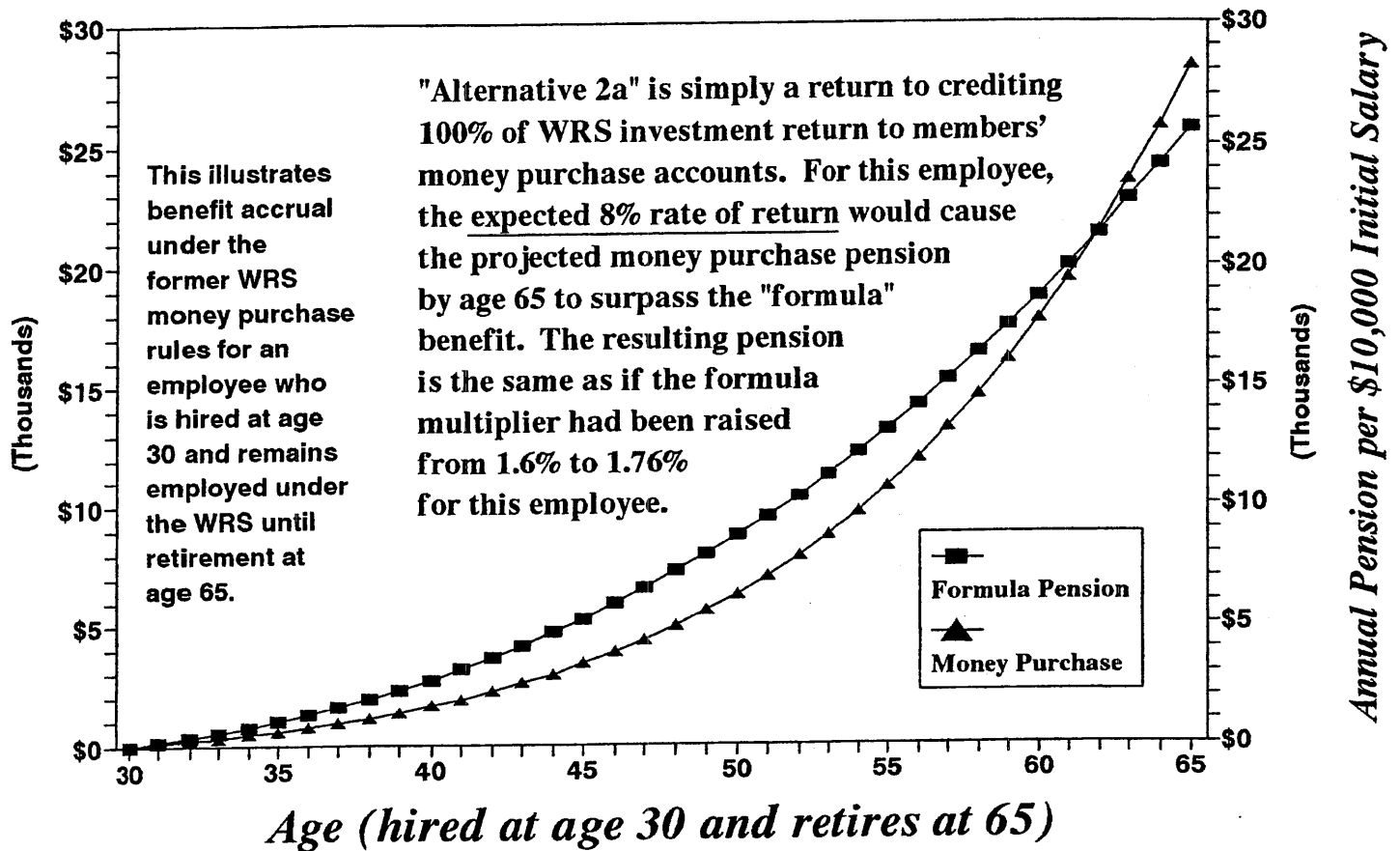
WFT/AFT

Ken Opin

WREA

Roger Chase
Velma Hamilton
Harold S. Rebholz
Norm Schomisch
WREA/WEAC-Retired
Jack Chvala

Example 1: WRS Pension for an Employee Who RETIRES under WRS "Alternative 2a"



Observations

1. Long ago (about 18 years), the old Money Purchase Plan actually helped many employees gain larger pensions by their long public service.
2. The increase in many employees' pensions over what the "Formula Plan" would have given them could easily be as much as last year's "Benefits Bill" sought to provide (an additional 0.2% in the formula multiplier applying to past service).
3. The cost of returning to the old Money Purchase Plan crediting rates would be:

For new UW staff: 0.13% of payroll = \$80,000 (year 1) increasing to \$3.1 million (year 30).

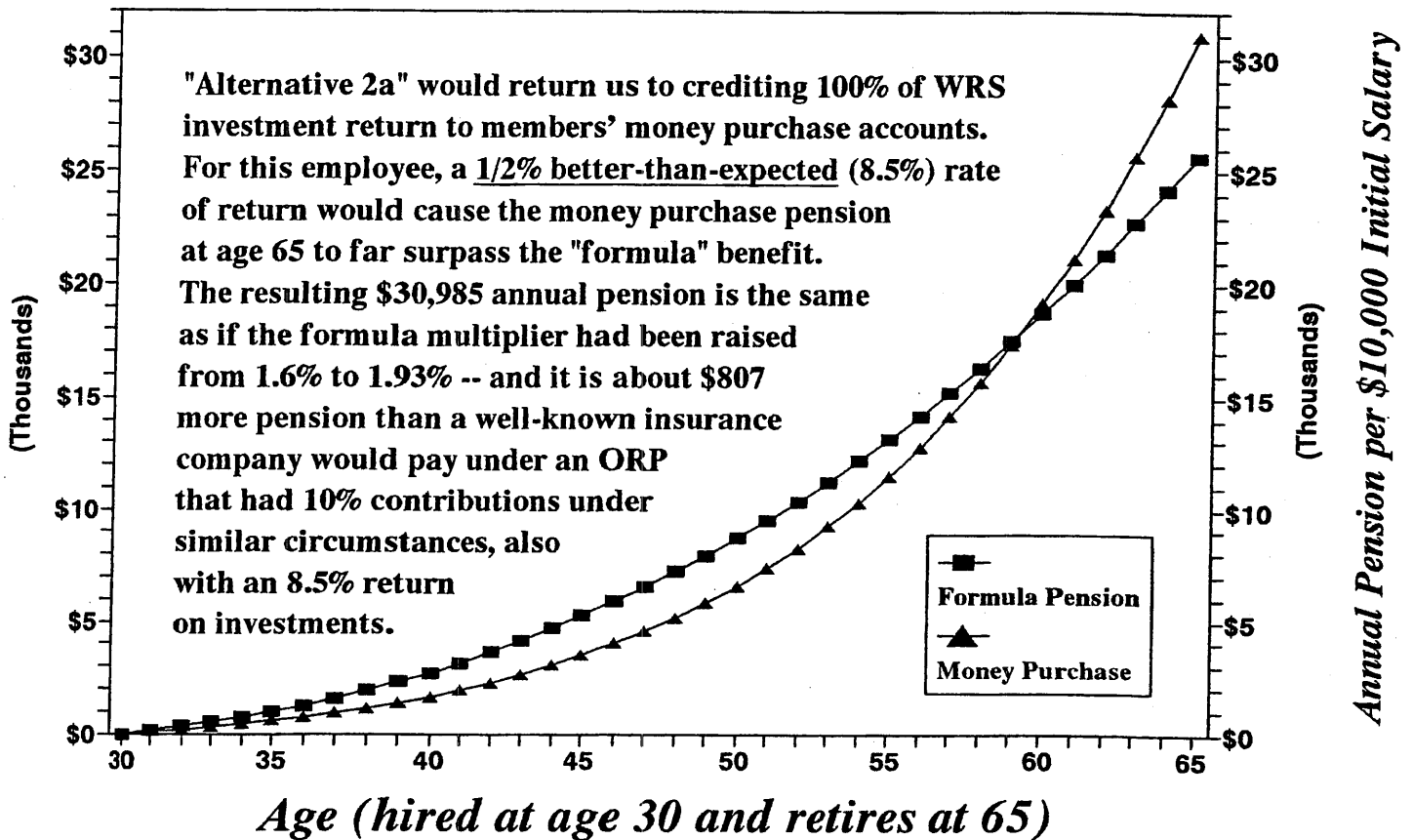
For General EEs: 0.31% to 0.49% of payroll = \$22.6 to \$35.8 million annually.

For Executive and Elected: 0.20% to 0.40% of payroll = \$149,000 to \$292,000 annually.

For Protectives with Soc Sec: 0.08% to 0.17% of payroll = \$434,000 to \$934,000 annually.

For Protectives without SS: 0.002% to 0.60% of payroll = \$3,000 to \$74,000 annually.

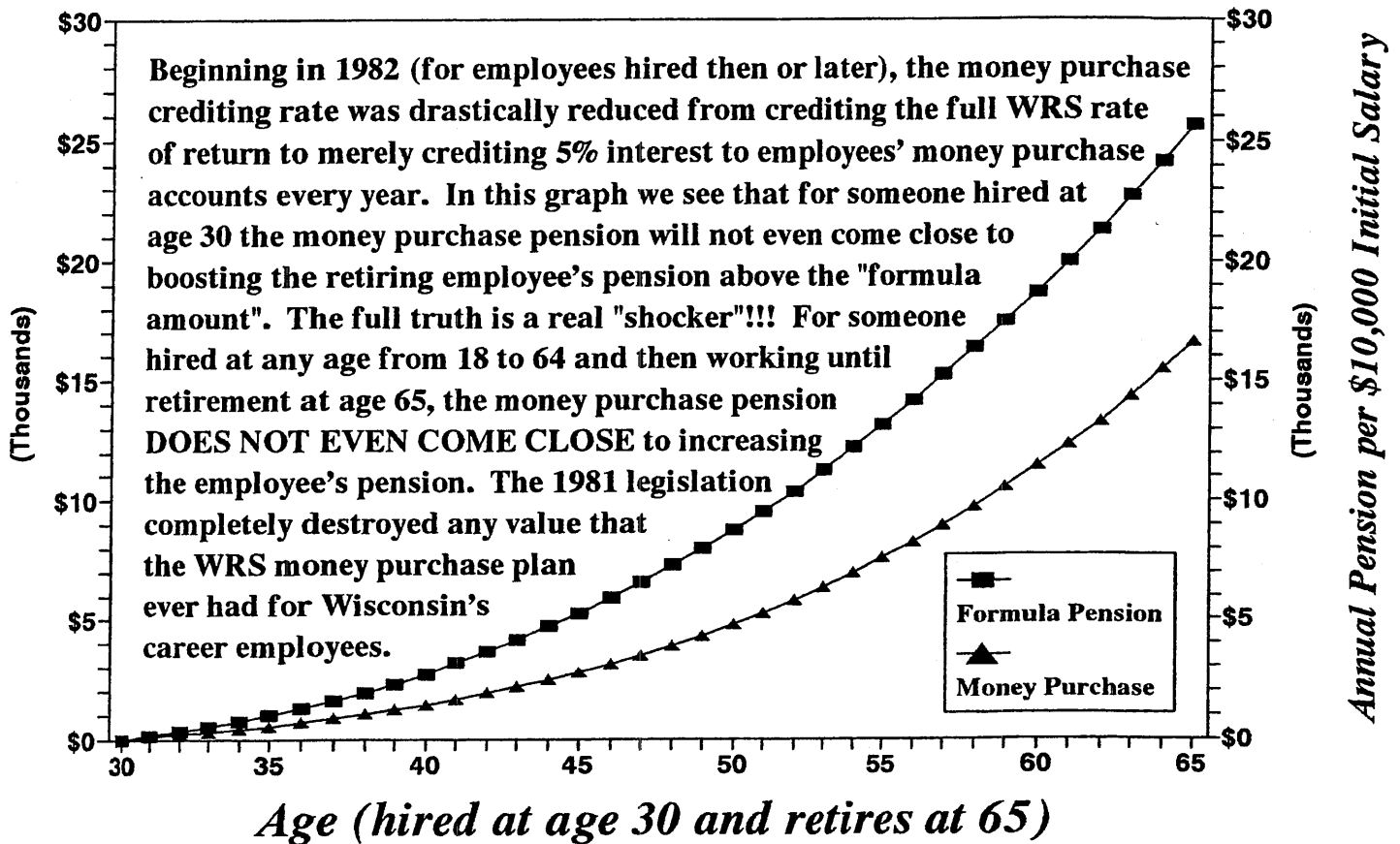
Example 2: WRS Pension for an Employee Who RETIRES under WRS "Alternative 2a"



Observations

- 1/2% above the 8% rate that the ETF Board, SWIB, and the actuary conservatively believe WRS will earn is not a long shot -- it is very likely to happen.
- The WRS charges less for money purchase pensions than one of the nation's leading variable annuity insurance companies. Could it be that . . .
 - ETF and SWIB are very efficient, able to keep their administrative expenses low?
 - The insurance company (which actually is well noted for its very low expenses) adds a little bit to the price to make a profit?
 - Wisconsin's mortality rates are less cautiously priced by the WRS actuary than the insurance company interprets its mortality tables, which reflect national, not Wisconsin, experience?
 - WRS members are getting a pretty good deal?
 - All of the above?

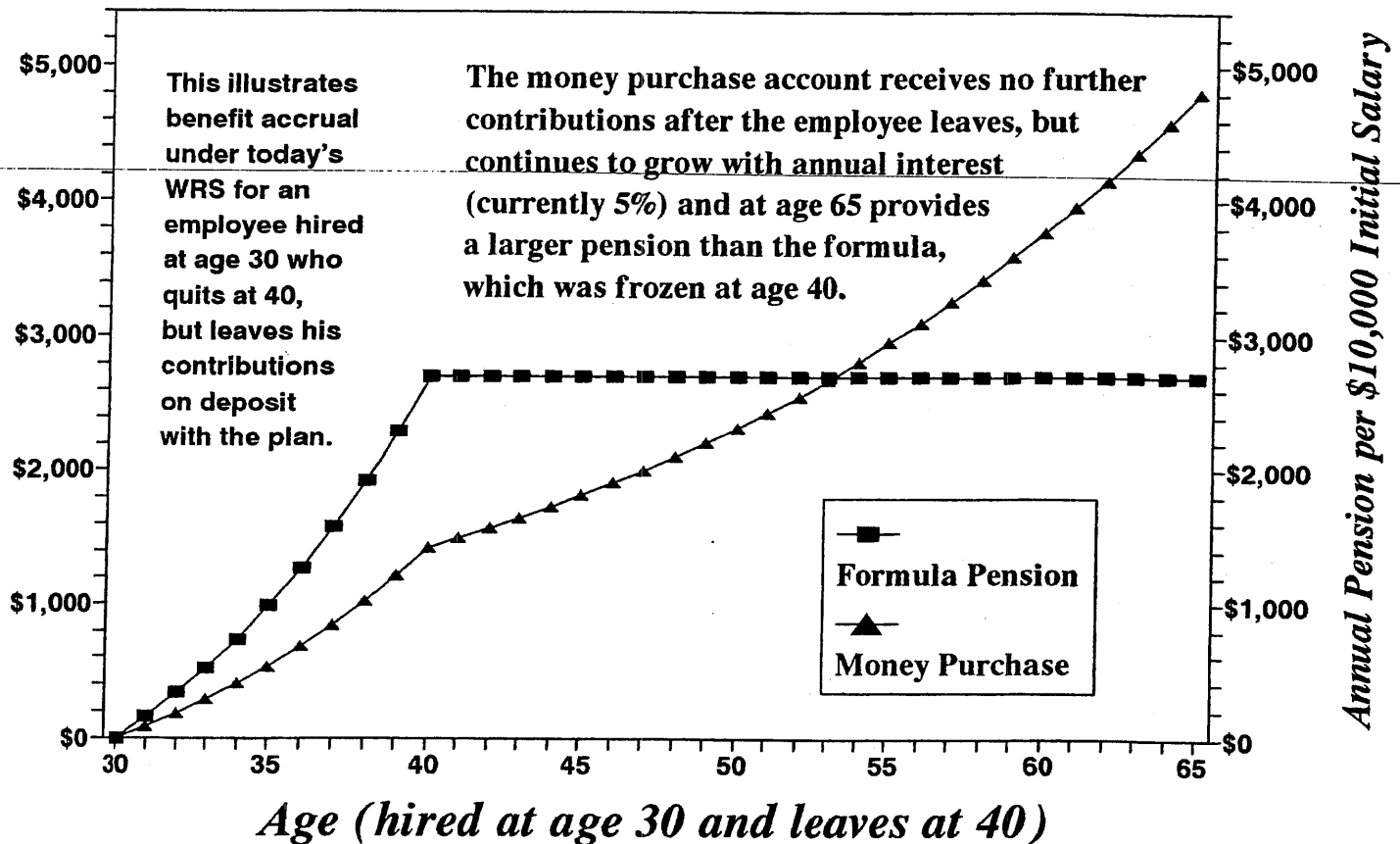
Example 3: WRS Pension for an Employee Who RETIRES under WRS As It Is Now



Observations

1. The 1981 benefit increase bill turned the WRS money purchase plan into a "dinosaur". While formerly this plan gave each employee a credible investment account within the retirement system, the 1981 law turned it into nothing but a savings account -- and in many years since 1981 banks have paid more than 5% interest on passbook savings accounts.
2. Since the money purchase plan no longer enables long term public employees to share in good investment results when the WRS has them, as was no doubt originally intended for that plan, might it not make sense to either fix that plan or else get rid of it?
3. And if the answer is "fix it", then why is an outside ORP needed by the University of Wisconsin? After all, all healthy money purchase plans work the same way, and we've just seen that Wisconsin's sells pensions at rock bottom prices.

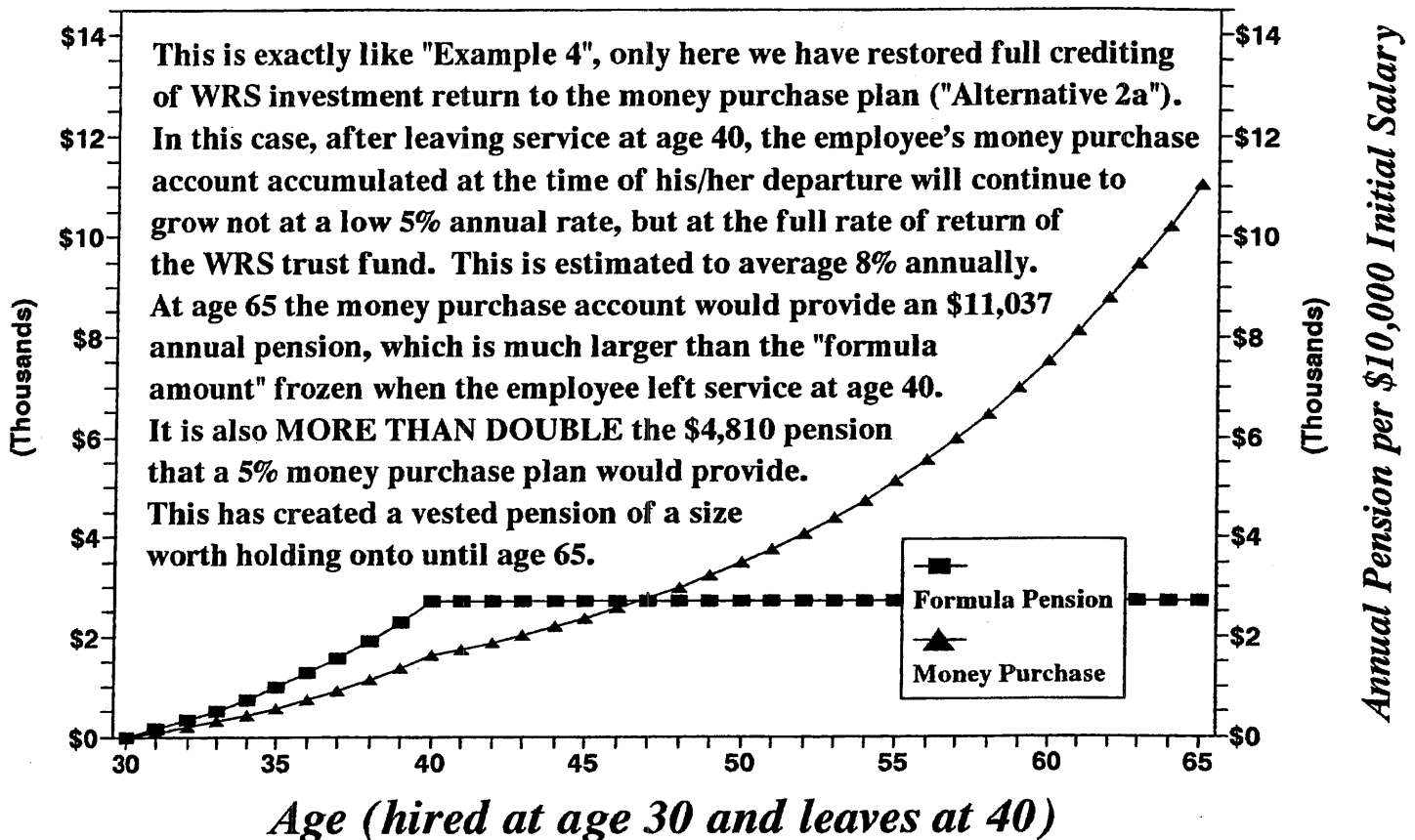
Example 4: WRS Pension for an Employee Who LEAVES under WRS As It Is Now



Observations

1. This example shows why DC plans are more "portable" than DB plans. A DC plan account from your old job keeps on growing into a decent sized pension -- appropriate for the fraction of your career you spent earning it.
2. What happens if a departing member doesn't leave the contributions in the WRS when he/she leaves, but cashes out? The WRS money purchase plan offers "separation benefits" only to those under age 55, and even then refunds only the member's half of the contributions, at an uninviting 3% rate of interest. A 10%-of-salary ORP would refund the employer's 5% of salary along with the member's 5% -- both with an unrestricted rate of interest. The WRS built-in penalty for cashing out is why over 80% of those quitting their Wisconsin jobs leave their money in the WRS for their retirements, while in other states over 80% typically cash out, and then they often squander the money.

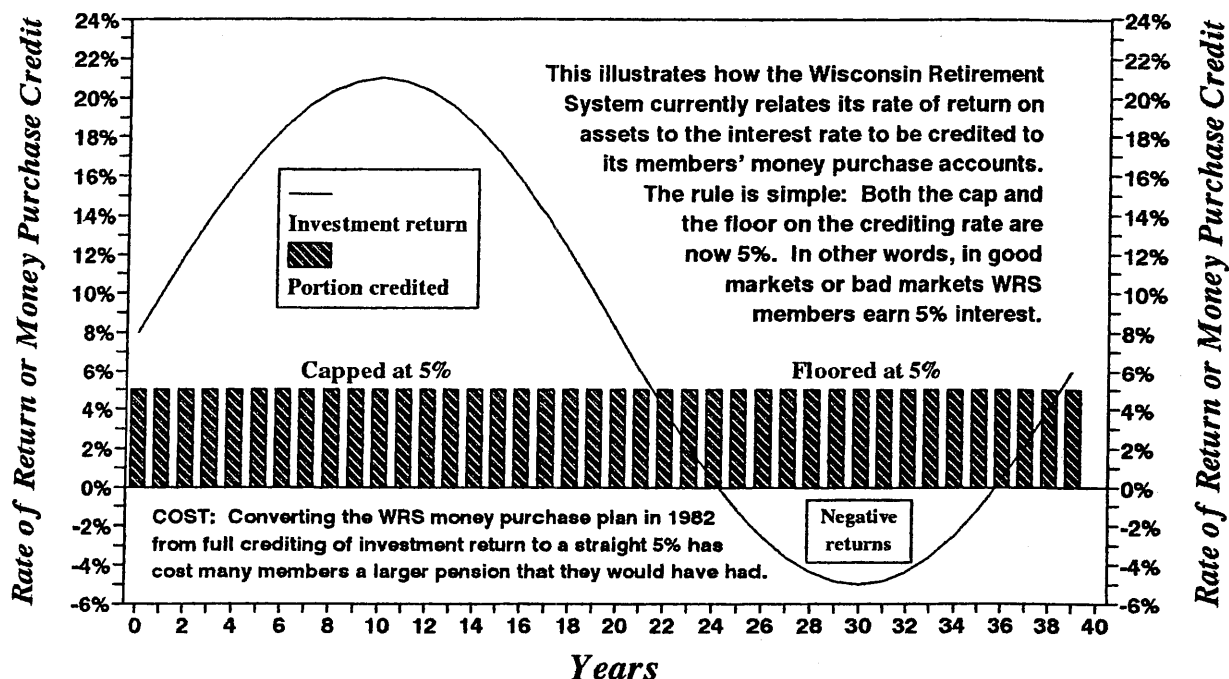
Example 5: WRS Pension for an Employee Who LEAVES under WRS "Alternative 2a"



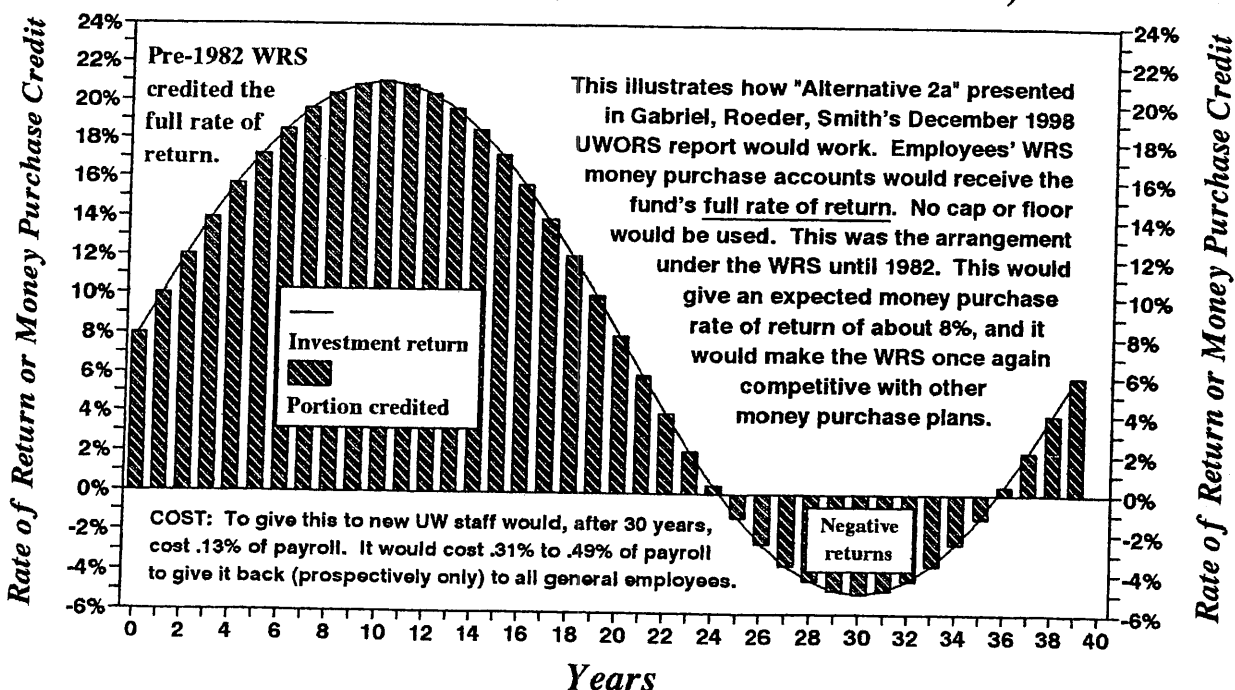
Observations

1. Would this not solve the UW's need for a portable and reasonably generous defined contribution plan to attract professors and other academic staff?
2. "Pension portability" is not just a problem for academics, but for anyone who for any reason leaves one job for another. Repairing the damage that was done in 1981 to the WRS money purchase plan would potentially help all 240,000 active members of the WRS, and not just the future UW staffers to be offered an optional retirement plan.
3. Examples 1 through 5 show projected pensions per each \$10,000 of starting salary. For a \$40,000 starting salary, dollar results of all graphs would merely be quadrupled, etc. All conclusions remain valid, regardless of salary level. Assumptions used for these projections are intended to be realistic, and are as described in the "Supplemental Actuarial Study" dated February 7, 1999.

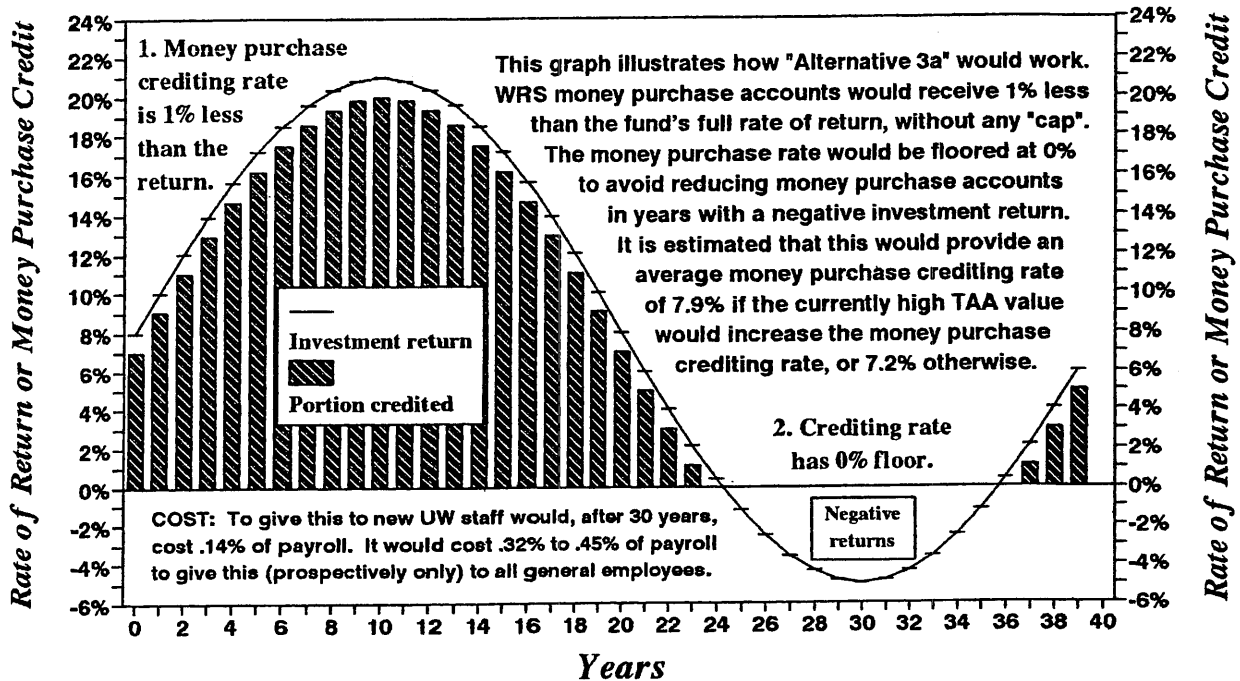
Money Purchase Crediting Rates Under Today's Wisconsin Retirement System



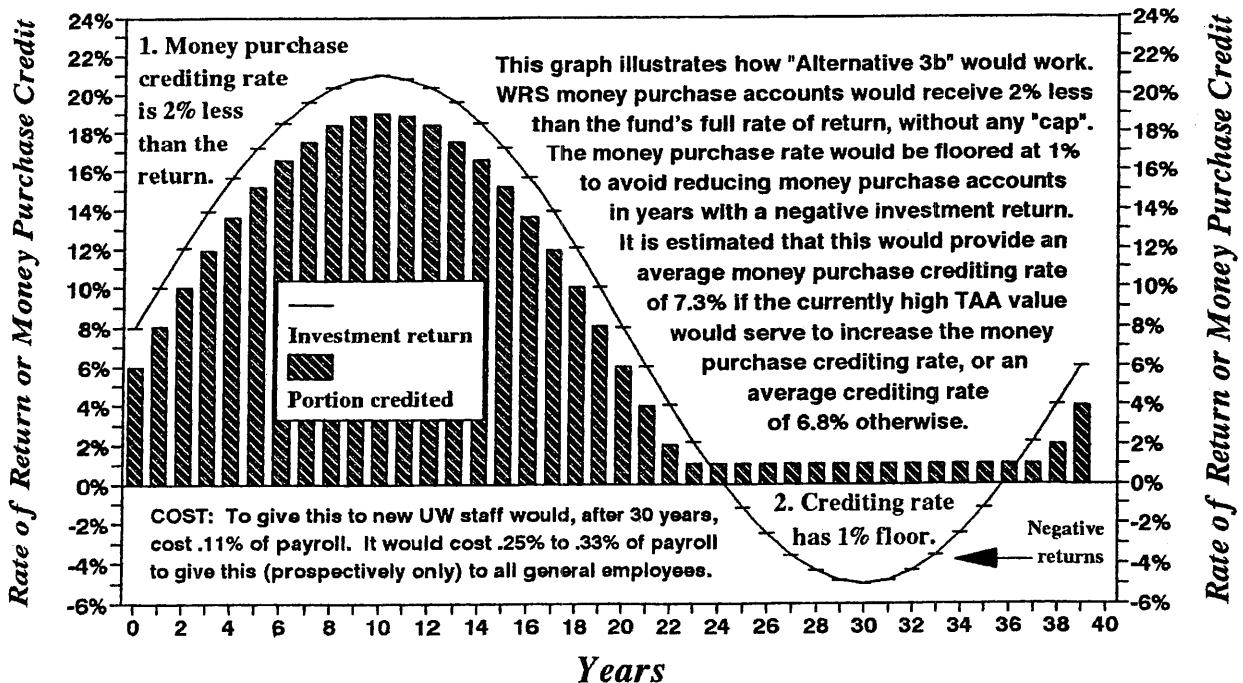
Money Purchase Crediting under the WRS Prior to 1982 (GRS "Alternative 2a")



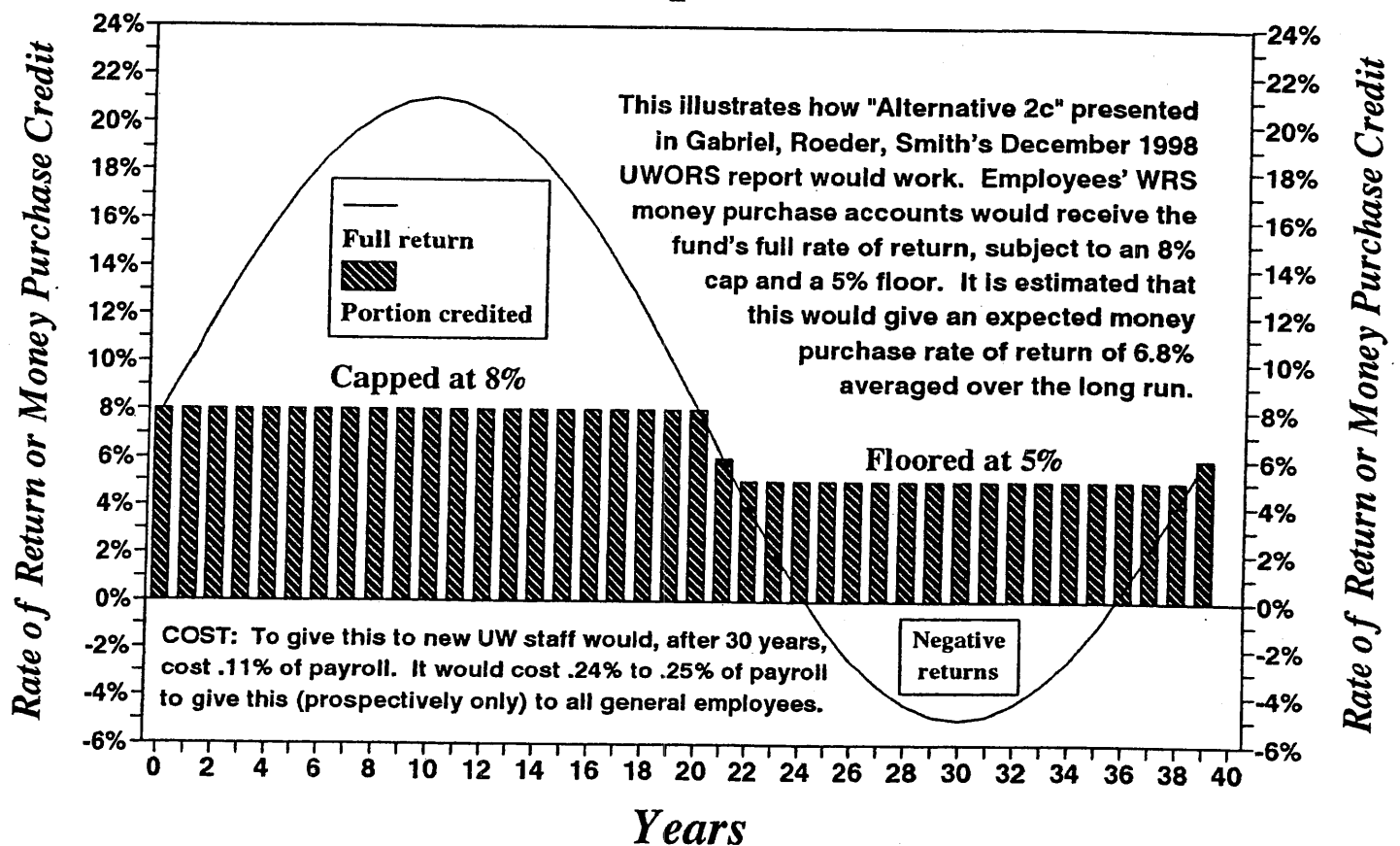
Money Purchase Crediting Rates Under the Suggested "Alternative 3a"



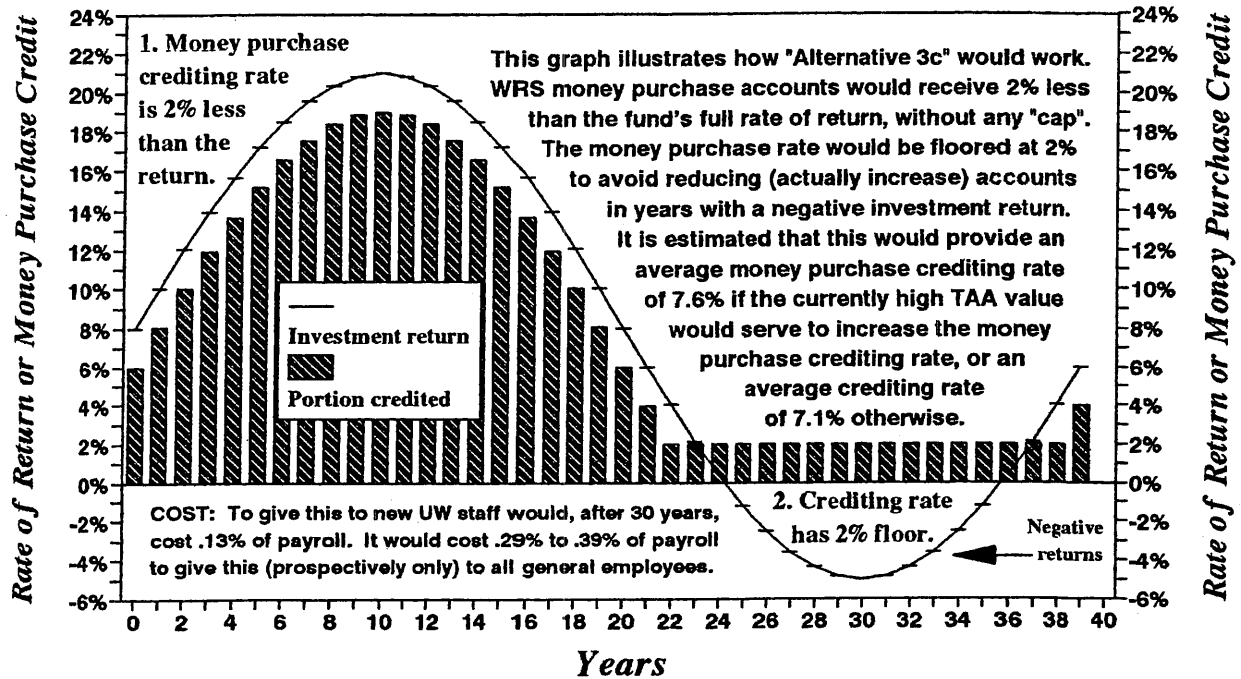
Money Purchase Crediting Rates Under the Suggested "Alternative 3b"



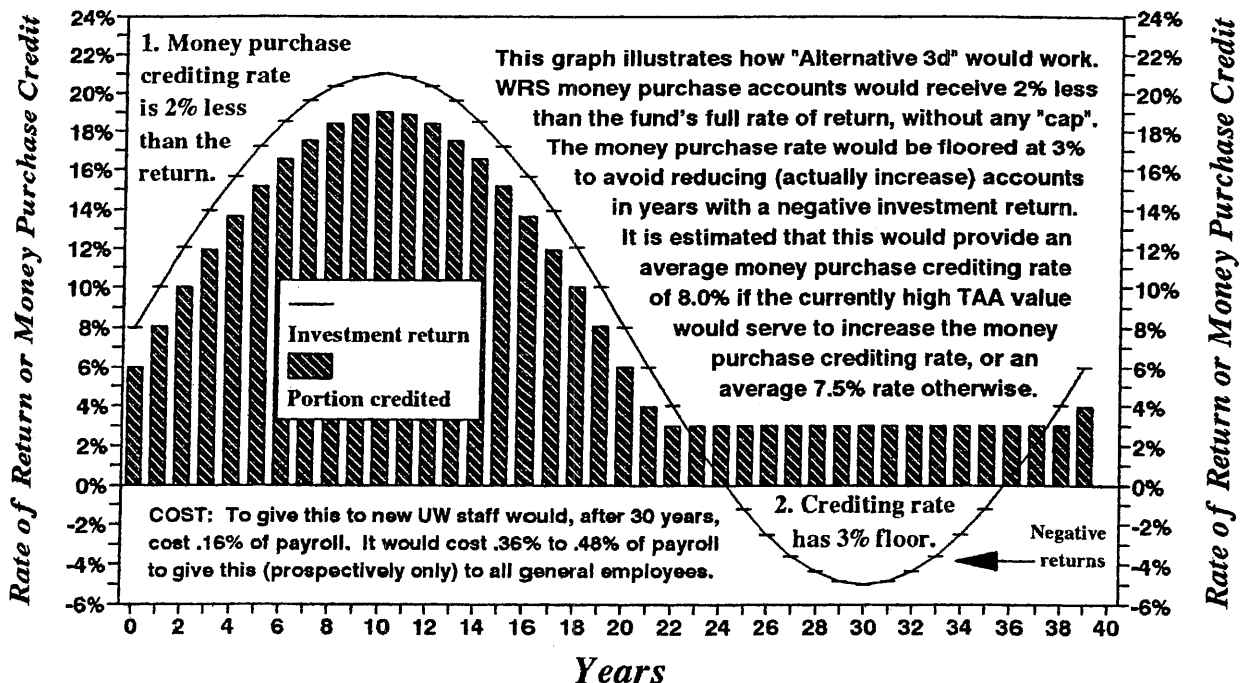
Money Purchase Crediting Rates Under the GRS Report's "Alternative 2c"



Money Purchase Crediting Rates Under the Suggested "Alternative 3c"



Money Purchase Crediting Rates Under the Suggested "Alternative 3d"



Money Purchase Crediting Rates Under the Suggested "Alternative 3d"

